



Consulting  
Engineers  
and Scientists

April 9, 2015

Project 101.05023.001

Ms. Maria Stowell, P.E.  
Manager of Engineering  
Pease Development Authority  
55 International Drive  
Portsmouth, New Hampshire 03801

RE: March 2015 Stormwater Sampling Results  
Pease International Tradeport  
Portsmouth, New Hampshire  
Permit No. NH0090000

Dear Maria:

Ransom Consulting, Inc. (Ransom) completed stormwater sampling at the Pease International Tradeport in the afternoon of March 4, 2015. Light freezing rain transitioned to temperatures up to 45° F and snow melt was occurring in the afternoon. Ransom mobilized to the Site to begin collecting the stormwater samples around 1:30 p.m. A discharge was not recorded at all in February or the previous three days in March due to daily temperatures below freezing. Sampling for trichloroethylene (TCE) is typically required in February; however, because a discharge did not occur in February, Ransom included TCE in the March sampling event to meet the permit requirement for quarterly sampling for TCE.

Sampling personnel completed the quarterly visual monitoring during the March sampling event. Water levels were very low in all streams. With the exception of the discharge at Hodgson Brook, Ransom personnel observed an odor and discoloration in the remaining three discharges. All samples contained some amount of settled and/or suspended solids (sand and silt). No foam or oily sheen was noted.

Deicing of planes and/or runways occurred at the airport in the month prior to the sampling event. Therefore, as required by the Permit, the sampling event included collection of samples for analysis of deicing chemicals (i.e., propylene glycol) from Flagstone Creek and McIntyre Brook in addition to the routine monitoring parameters. The frequency of analysis for propylene glycol is listed as "monthly when discharging" (MM/WD).

The following documents are attached:

1. Record of Storm Events for March 2015 and a summary of the Usage of Deicing Chemicals (Attachment A);
2. Data tables with the stormwater sampling results to be input into the electronic Discharge Monitoring Reports (DMRs) (Attachment B);

Pease International Tradeport, 112 Corporate Drive, Portsmouth, New Hampshire 03801, Tel (603) 436-1490, Fax (603) 436-6037  
400 Commercial Street, Suite 404, Portland, Maine 04101, Tel (207) 772-2891  
12 Kent Way, Suite 100, Byfield, Massachusetts 01922-1221, Tel (978) 465-1822  
60 Valley Street, Building F, Suite 106, Providence, Rhode Island 02909, Tel (401) 433-2160  
2127 Hamilton Avenue, Hamilton, New Jersey 08619, Tel (609) 584-0090

[www.ransomenv.com](http://www.ransomenv.com)

Ms. Maria Stowell, P.E., Manager of Engineering  
Pease Development Authority

3. Field Forms: Stormwater Sampling Field Log dated March 4, 2015, with pH measurements, collection and analysis times, and flow measurements, a Flow Calculation sheet, the Quarterly Visual Monitoring Report (Attachment C); and
4. Laboratory chemical analysis reports from Alpha Analytical, Inc. of Westborough, Massachusetts (L1504071) and Eastern Analytical, Inc. (141048) (Attachment D).

Summary of Stormwater Results

Routine monthly parameters were within the permit limits. Propylene glycol was detected in the stormwater sample collected from McIntyre Brook at a concentration of 720 milligrams per liter (mg/l), but was not detected in the sample collected from Flagstone Creek. TCE was not detected in any of the four stormwater samples. The laboratory reporting limits for all parameters are included on the data tables provided in Attachment B.

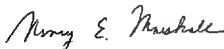
Submittal of Stormwater Results

The stormwater monitoring results must be submitted via eDMR no later than April 15, 2015. Ransom understands that Pease Development Authority (PDA) will complete the online submittal.


Ransom appreciates the opportunity to work with the PDA. If you have any questions regarding this letter, please feel free to call Nancy or Steve.

Sincerely,

RANSOM CONSULTING, INC.

 Nancy Marshall  
2015.04.09 14:43:27 -04'00'

Nancy E. Marshall, P.E.  
Project Manager

 Steven F. Rickerich, P.G.  
2015.04.09 15:31:02  
-04'00'

Steven F. Rickerich, P.G.  
Vice President

NEM/SFR:jar  
Attachments

## **ADDITIONAL REMARKS**

**Permit Number NH 0090000**

**March 2015**

### **Deicing:**

Deicing occurred in the month of March (please refer to the Usage of Deicing Chemicals Table).

### **March Results:**

During the March stormwater sampling event samples for propylene glycol were collected from Flagstone Creek and McIntyre Brook.

**ATTACHMENT A**

Record of Storm Events and  
Usage of Deicing Chemicals

March 2015 Stormwater Sampling Results  
Pease International Tradeport  
Portsmouth, New Hampshire  
Permit No. NH0090000

## Record of Storm Events

PDA Tradeport, Portsmouth, NH

MARCH 2015

Date of Event	Time or Duration of Event	Precipitation (Inches)	Measurement Gauge (G) or describe	Did a Stormwater Discharge from Site Occur?		Evaluator's Initials	Comments
				Yes	No		
1, Su	5:16 p.m. - Midnight	0.05	website		X	NEM	Snow, 24" depth. Temps 29° - 1° F
2	Midnight - 12:58 a.m.	0.00	website		X	NEM	Snow, 25" depth. Temps 32° - 14° F
3	7:36 p.m. - Midnight	0.07	website		X	NEM	Snow, 24" depth. Temps 30° - 15° F
4	Midnight - 12:58 a.m.	0.02	website	X		NEM	Light freezing rain. Temps 45° - 28° F Sampled snow melt in the afternoon
5		0.00	website		X	NEM	20" Snow depth. Temps 37° - 12° F
6		0.00	website		X	NEM	20" Snow depth. Temps 26° - 2° F
7, Sa		0.00	website		X	NEM	20" Snow depth. Temps 36° - 9° F
8, Su		0.00	website	?		NEM	19" Snow depth. Temps 39° - 14° F
9		0.00	website	?		NEM	18" Snow depth. Temps 44° - 21° F
10	9:58 p.m. - Midnight	0.00	website	X		NEM	Light rain. Temps 46° - 24° F
11	Midnight - 2:41 a.m.	0.01	website	X		NEM	Light rain. Temps 54° - 37° F
12		0.00	website	?		NEM	13" Snow depth. Temps 39° - 22° F
13		0.00	website		X	NEM	13" Snow depth. Temps 38° - 20° F
14, Sa	11:31 a.m. - Midnight	0.45	website	X		NEM	Rain. 11" Snow depth
15, Su	7:36 a.m. - 6:20 p.m.	0.06	website	?		NEM	Light rain/snow mix; 11" Snow depth
16		0.00	website	?		NEM	11" Snow depth. Temps 43° - 21° F
17	5:58 a.m. - 4:58 p.m.	0.12	website	X			Intermittent rain; 10" Snow depth
18		0.00	website		X		9" Snow depth. Temps 25° - 18° F
19		0.00	website		X		9" Snow depth. Temps 29° - 15° F
20		0.00	website		X		8" Snow depth. Temps 32° - 14° F
21, Sa	2:29 a.m. - 6:58 p.m.	0.00	website		X		Lt snow; 8" depth. Temps 36° - 26° F
22, Su		0.00	website		X		8" Snow depth. Temps 36° - 16° F
23		0.00	website		X		8" Snow depth. Temps 30° - 13° F
24		0.00	website		X		7" Snow depth. Temps 38° - 12° F
25	7:39 p.m. - 9:58 p.m.	0.01	website		X		Lt rain; 5" Snow depth. Temps 40° - 19° F
26	3:01 p.m. - Midnight	0.55	website	X			Rain; 3" Snow depth.
27	Midnight - 11:58 a.m.	0.13	website	X			Light rain; 2" Snow depth.
28, Sa	7:50 a.m. - 5:13 p.m.	0.03	website		X		Light snow; 2" Snow depth.
29, Su		0.00	website		X		2" Snow depth. Temps 42° - 20° F
30	9:10 a.m. - 1:58 a.m.	0.00	website		X		Lt snow; 2" Snow depth.
31		0.00	website	?			2" Snow depth. Temps 48° - 33° F
Websites <a href="http://www.wunderground.com/history/airport/KPSM/2015/3/1/DailyHistory.html?&amp;reqdb.zip=&amp;reqdb.magic=&amp;reqdb.wmo=">http://www.wunderground.com/history/airport/KPSM/2015/3/1/DailyHistory.html?&amp;reqdb.zip=&amp;reqdb.magic=&amp;reqdb.wmo=</a> <a href="http://www.crh.noaa.gov/data/obhistory/KPSM.html">http://www.crh.noaa.gov/data/obhistory/KPSM.html</a> <a href="http://weather.noaa.gov/weather/current/KPSM.html">http://weather.noaa.gov/weather/current/KPSM.html</a>							

**Usage of Deicing Chemicals  
Winter 2014-2015  
Pease International Tradeport  
Portsmouth, New Hampshire**

Month/Yr	Day	Time	Location	Propylene Glycol	Quantity (gal)	Company
Nov 2014	1	10:14 - 21:58	Discharge Event (0.22")			
	2	5:12 - 14:58	Discharge Event (0.19")			
	6	10:58 - 21:58	Discharge Event (0.27")			
	14	00:00 - 7:13	Storm Event, rain/snow mix, then snow (0.13")			
	14	7:00	NHANG Apron	Type I	104	NH ANG
	17	2:58 - 10:28	Discharge Event (0.85")			
	24	19:58-23:58	Discharge Event: Light rain-rain (0.40"); <b>SAMPLED</b>			
	26	9:58 - 24:00	Discharge Event (0.77")			
Dec 2014	3	0:00	Discharge Event (0.31+")			
	3	9:30	NHANG Apron	Type I	1,400	NH ANG
	3	9:39	Terminal Apron	Type I	87	Port City
	6	00 - 24:00	Discharge Event (0.79")			
	9-10	00 - 24:00	Discharge Event (2.87") <b>SAMPLED</b>			
	11	18:00	NHANG Apron	Type I	200	NH ANG
	11	21:30	NHANG Apron	Type I	500	NH ANG
	13	6:58	General Aviation	Type I	4.7	Port City
	17	00 - 10:28	Discharge Event (0.38")			
	23-25	00 - 8:58	Discharge Event (0.84")			
	28	05:18 - 9:58	Discharge Event (0.11")			
Jan 2015	3-4	17:10-22:58	Discharge Event, Snow to ice to rain/freezing rain (0.99")			
	5	21:00	NHANG Apron	Type I	95	NH ANG
	7	10:30	NHANG Apron	Type I	150	NH ANG
	9	9:14	General Aviation	Type I	25.5	Alpha Flying
	9	10:23	General Aviation	Type I	27	Port City
	12	6:35	General Aviation	Type I	30	Port City
	12	8:17	General Aviation	Type I	39	Port City
	12	9:11	General Aviation	Type I	22	Port City
	12	10:30	NHANG Apron	Type I	200	NH ANG
	12	11:02	Terminal Apron	Type I	54	Port City
	12	11:02	Terminal Apron	Type IV	87	Port City
	12	13:30	NHANG Apron	Type I	39	NH ANG
	15	10:16	General Aviation	Type I	37	Port City
	15	11:30	NHANG Apron	Type I	150	NH ANG
	16	10:00	NHANG Apron	Type I	700	NH ANG
	18-19	13:41 - 01:58	Discharge Event, Light freezing rain (0.14")			
	24	19:22	General Aviation	Type I	49.9	Port City
	24	19:22	General Aviation	Type IV	37.5	Port City
	24	10:15	General Aviation	Type I	73	Port City
	24	10:15	General Aviation	Type IV	36	Port City
	24	14:01	General Aviation	Type I	8	Port City
	24	14:15	General Aviation	Type I	13	Port City

**Usage of Deicing Chemicals  
Winter 2014-2015  
Pease International Tradeport  
Portsmouth, New Hampshire**

Month/Yr	Day	Time	Location	Propylene Glycol	Quantity (gal)	Company
Jan 2015	24	14:32	General Aviation	Type I	10.1	Port City
	24	14:42	General Aviation	Type I	11.5	Port City
	24	18:19	Terminal Apron	Type I	73.9	Port City
	24	18:19	Terminal Apron	Type IV	34.6	Port City
	25	10:10	General Aviation	Type I	67	Port City
	30	6:33	General Aviation	Type I	22	Port City
	30	8:00	Terminal Apron	Type I	554	Port City
	30	8:00	Terminal Apron	Type IV	120	Port City
	30	11:29	Terminal Apron	Type I	143	Port City
	30	11:29	Terminal Apron	Type IV	120	Port City
	30	13:28	General Aviation	Type IV	79	Port City
	30	18:04	General Aviation	Type I	30	Port City
Feb 2015	5	3:06	Terminal Apron, Cargo Apron	Type I	75	Port City
	5	7:12	General Aviation	Type I	82	Port City
	5	8:38	General Aviation	Type I	14	Port City
	5	11:10	Terminal Apron	Type I	90	Port City
	5	11:10	Terminal Apron	Type IV	1,002.20	Port City
	5	12:00	NHANG Apron	Type I	3,200	NH ANG
	8	6:10	Terminal Apron, General Aviation	Type I	552	Port City
	8	6:10	Terminal Apron, General Aviation	Type IV	120	Port City
	8	6:10	Terminal Apron, General Aviation	Type I	772	Port City
	8	6:10	Terminal Apron, General Aviation	Type IV	270	Port City
	8	7:57	General Aviation	Type I	18	Port City
	8	8:40	General Aviation	Type I	25	Port City
	8	12:46	General Aviation	Type I	21	Port City
	8	13:44	General Aviation	Type IV	56	Port City
	8	12:23	General Aviation	Type I	55	Port City
	8	12:23	General Aviation	Type IV	108.63	Port City
	8	16:10	General Aviation	Type I	17	Port City
	9	11:03	Terminal Apron	Type I	82	Port City
	9	11:03	Terminal Apron	Type IV	94	Port City
	9	11:03	General Aviation	Type I	65	Port City
	10	4:20	General Aviation	Type I	43.3	Port City
	10	6:11	General Aviation	Type I	44	Port City
	12	15:33	General Aviation	Type I	50	Port City
	12	15:33	General Aviation	Type IV	38	Port City
	12	15:49	General Aviation	Type I	26	Port City

**Usage of Deicing Chemicals  
Winter 2014-2015  
Pease International Tradeport  
Portsmouth, New Hampshire**

Month/Yr	Day	Time	Location	Propylene Glycol	Quantity (gal)	Company
Feb 2015	12	15:59	General Aviation	Type I	34	Port City
	12	16:05	General Aviation	Type I	23	Port City
	12	21:00	NHANG Apron	Type I	550	NH ANG
	15	0:21	Main Apron	Type I	1,119	Port City
	15	0:21	Main Apron	Type IV	240	Port City
	17	17:00	NHANG Apron	Type I	100	NH ANG
	19	7:30	NHANG Apron	Type I	88	NH ANG
	19	18:30	General Aviation	Type I	69	Port City
	19	19:30	NHANG Apron	Type I	450	NH ANG
	19	20:00	NHANG Apron	Type I	100	NH ANG
	20	5:30	NHANG Apron	Type I	1,100	NH ANG
	22	5:30	NHANG Apron	Type I	900	NH ANG
	24	10:00	NHANG Apron	Type I	60	NH ANG
Mar-15	2	10:00	NHANG Apron	Type I	370	NH ANG
	4	Afternoon	Discharge of snow melt (Max. temp of 45° at 1:58 p.m.); <b>SAMPLED</b>			
	4	8:30	NHANG Apron	Type I	100	NH ANG
	9-11	Daytime	Discharge of snow melt Daytime temps of 44° - 54° )			
	14-17	Throughout	Discharge of rain and snow melt (0.63" )			
	15	11:48	Terminal Ramp	Type I	89	Port City
	15	11:48	Terminal Ramp	Type IV	77	Port City
	15	17:37	General Aviation	Type I	36.4	Port City
	15	17:37	General Aviation	Type IV	20	Port City
	15	18:38	General Aviation	Type I	23.8	Port City
	16	7:00	NHANG Apron	Type I	500	NH ANG
	17	10:00	NHANG Apron	Type I	50	NH ANG
	24	6:05	Terminal Apron	Type I	176.3	Port City
	26-27	Throughout	Discharge of rain and snow melt (0.68" )			